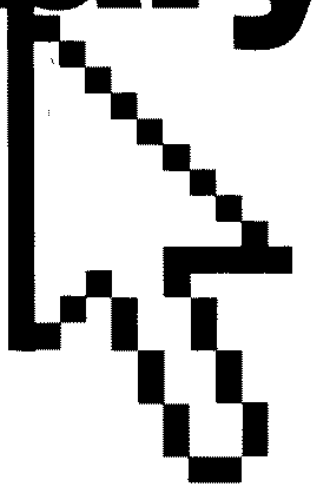
EXHIBIT GG

Microsoft® Press

Microsoft® Computer Dictionary

Fourth Edition



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A

Apple Events *n.* A feature added to Mac OS System 7 that enables one application to send a command, such as save or open, to another application. *See also* Mac OS.

Apple Extended Keyboard *n.* A 105-key keyboard that works with the Macintosh SE, Macintosh II, and Apple IIGS computers. This keyboard marks Apple's first inclusion of function (F) keys, whose absence was long cited as a shortcoming of the Macintosh compared with IBM PCs and compatibles. This feature, along with other layout changes and the addition of new keys and lights, makes the Apple Extended Keyboard quite similar in form to the IBM enhanced keyboard. See the illustration. *See also* enhanced keyboard.

Apple II *n.* The second computer introduced by the Apple Computer Corporation, in April 1977. The Apple II featured 4K dynamic RAM, expandable to 48K (with 16K chips), and used the 6502 microprocessor. The Apple II was the first computer to offer a TV video adapter as an optional alternative to a color computer monitor. It also featured sound and eight expansion slots. *See also* 6502.

Apple key *n.* A key on Apple keyboards labeled with an outline of the Apple logo. On the Apple Extended Keyboard, this key is the same as the Command key, which functions similarly to the Control key on IBM and compatible keyboards. It is generally used in conjunction with a character key as a shortcut to making menu selections or starting a macro.

Apple Macintosh *n. See* Macintosh.

Apple Newton *n. See* Newton.

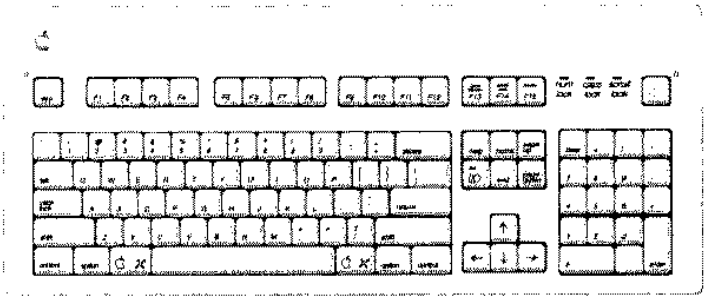
AppleScript *n.* A script language developed by Apple Computer, Inc., for Macintosh computers running under the Mac OS to execute commands and automate functions. *See also* script.

AppleShare *n.* A file server software developed by Apple Computer, Inc., that works with the Mac OS and allows one Macintosh computer to share files with another on the same network. *See also* file server, Mac OS.

applet \a'plat\ *n.* A program that can be downloaded over the Internet and executed on the recipient's machine. Applets are often written in the Java programming language and run within browser software, and they are typically used to customize or add interactive elements to a Web page.

AppleTalk *n.* An inexpensive local area network developed by Apple Computer, Inc., for Macintosh computers that can be used by Apple and non-Apple computers to communicate and share resources such as printers and file servers. Non-Apple computers must be equipped with AppleTalk hardware and suitable software. The network uses a layered set of protocols similar to the ISO/OSI reference model and transfers information in the form of packets called frames. AppleTalk supports connections to other AppleTalk networks through devices known as bridges, and it supports connections to dissimilar networks through devices called gateways. *See also* bridge, frame (definition 2), gateway.

application *n.* A program designed to assist in the performance of a specific task, such as word processing, accounting, or inventory management. *Compare* utility.



Apple Extended Keyboard.

application binary interface *n.* A set of instructions that specifies how an executable file interacts with the hardware and how information is stored. *Acronym:* ABI. *Compare* application programming interface.

application-centric *adj.* Of, pertaining to, or characteristic of an operating system in which a user invokes an application to open or create documents (such as word processing files or spreadsheets). Command-line interfaces and some graphical user interfaces such as the Windows 3.*x* Program Manager are application-centric. *Compare* document-centric.

application developer *n.* An individual who designs and analyzes the appearance and operation of an application program.

application development environment *n.* An integrated suite of programs for use by software developers. Typical components of application development environments include a compiler, file browsing system, debugger, and text editor for use in creating programs.

application development language *n.* A computer language designed for creating applications. The term is usually restricted to refer to languages with specific high-level constructs geared toward record design, form layout, database retrieval and update, and similar tasks. *See also* 4GL, application, application generator.

application development system *n.* A programming environment designed for the development of an application, typically including a text editor, compiler, and linker, and often including a library of common software routines for use in the developed program.

application entity *n. See* AE.

application file *n. See* program file.

Application Foundation Classes *n.* A set of Java class libraries developed by Microsoft that provides developers with user-interface controls and graphics tools for creating and manipulating elements such as text and fonts. The Application Foundation Classes extend the capabilities of Java's Abstract Windowing Toolkit (AWT) and are used to facilitate and expedite the creation of Java applets and applications through the use of prebuilt, customizable development components. *Acronym:* AFC. *See also* Internet Foundation Classes, Java, Java Foundation Classes, Microsoft Foundation Classes.

application gateway *n.* Software running on a machine that is intended to maintain security on a secluded network yet allow certain traffic to go between the private network and the outside world. *See also* firewall.

application generator *n.* Software for generating source or machine code for running an application based on a description of the desired functionality. Limited in scope, application generators are included with some database programs and use built-in instruction sets to generate program code. *See also* application.

application heap *n.* A block of RAM used by an application to store its code, resources, records, document data, and other information. *See also* heap (definition 1), RAM.

application layer *n.* The highest layer of standards in the Open Systems Interconnection (OSI) reference model. The application layer contains signals that perform useful work for the user, such as file transfer or remote access to a computer, as opposed to lower levels, which control the exchange of data between transmitter and receiver. See the illustration. *See also* ISO/OSI reference model.

ISO/OSI MODEL

ISO/OSI Layer	*Focus*
Application *(highest level)*	Program-to-program transfer of information
Presentation	Text formatting and display, code conversion
Session	Establishing, maintaining, and coordinating communication
Transport	Accurate delivery, service quality
Network	Transport routes, message handling and transfer
Data-link	Coding, addressing, and transmitting information
Physical	Hardware connections

Application layer. *The highest layer in the ISO/OSI reference model.*

application processor *n.* A processor dedicated to a single application.

application program *n. See* application.

computer power *n.* The ability of a computer to perform work. If defined as the number of instructions the machine can carry out in a given time, computer power is measured in millions of instructions per second (MIPS) or millions of floating-point operations per second (MFLOPS). Power is measured in other ways too, depending on the needs or objectives of the person evaluating the machine. By users or purchasers of computers, power is often considered in terms of the machine's amount of random access memory (RAM), the speed at which the processor works, or the number of bits (8, 16, 32, and so on) handled by the computer at one time. Other factors enter into such an evaluation, however; two of the most important are how well the components of the computer work together and how well they are matched to the tasks required of them. For example, no matter how fast or powerful the computer, its speed will be hampered during operations involving the hard disk if the hard disk is slow (for example, with an access time of 65 milliseconds or higher). *See also* access time (definition 2), benchmark¹, MFLOPS, MIPS.

Computer Press Association *n.* A trade organization of journalists, broadcasters, and authors who write or report about computer technology and the computer industry.

Computer Professionals for Social Responsibility *n. See* CPSR.

computer program *n.* A set of instructions in some computer language intended to be executed on a computer so as to perform some task. The term usually implies a self-contained entity, as opposed to a routine or a library. *See also* computer language. *Compare* library (definition 1), routine.

computer-readable *adj.* Of, pertaining to, or characteristic of information that can be interpreted and acted on by a computer. Two types of information are referred to as computer-readable: bar codes, magnetic tape, magnetic-ink characters, and other formats that can be scanned in some way and read as data by a computer; and machine code, the form in which instructions and data reach the computer's microprocessor.

computer revolution *n.* The societal and technological phenomenon involving the swift development and widespread use and acceptance of computers—specifically single-user personal computers. The impact of these machines is considered revolutionary for two reasons. First, their appearance and success were rapid. Second, and more important, their speed and accuracy produced a change in the ways in which information can be processed, stored, and transferred.

computer science *n.* The study of computers, including their design, operation, and use in processing information. Computer science combines both theoretical and practical aspects of engineering, electronics, information theory, mathematics, logic, and human behavior. Aspects of computer science range from programming and computer architecture to artificial intelligence and robotics.

computer security *n.* The steps taken to protect a computer and the information it contains. On large systems or those handling financial or confidential data, computer security requires professional supervision that combines legal and technical expertise. On a microcomputer, data protection can be achieved by backing up and storing copies of files in a separate location, and the integrity of data on the computer can be maintained by assigning passwords to files, marking files "read-only" to avoid changes to them, physically locking a hard disk, storing sensitive information on floppy disks kept in locked cabinets, and installing special programs to protect against viruses. On a computer to which many people have access, security can be maintained by requiring personnel to use passwords and by granting only approved users access to sensitive information. *See also* bacterium, encryption, virus.

computer simulation *n. See* simulation.

computer system *n.* The configuration that includes all functional components of a computer and its associated hardware. A basic microcomputer system includes a console, or system unit, with one or more disk drives, a monitor, and a keyboard. Additional hardware, called *peripherals,* can include such devices as a printer, a modem, and a mouse. Software is usually not considered part of a computer system, although the operating system that runs the hardware is known as system software.

computer telephone integration *n.* A process allowing computer applications to answer incoming calls, provide database information on-screen at the same time the call comes in, automatically route and reroute calls by drag-and-drop, automatically dial and speed-dial outgoing calls from a computer-resident

types, and variables, that usually performs a single task. A procedure can usually be called (executed) by other procedures, as well as by the main body of the program. Some languages distinguish between a procedure and a function, with the latter (the function) returning a value. *See also* function, parameter, procedural language, routine, subroutine.

procedure call *n.* In programming, an instruction that causes a procedure to be executed. A procedure call can be located in another procedure or in the main body of the program. *See also* procedure.

process[1] *n.* A program or part of a program; a coherent sequence of steps undertaken by a program.

process[2] *vb.* To manipulate data with a program.

process-bound *adj.* Limited in performance by processing requirements. *See also* computation-bound.

process color *n.* A method of handling color in a document in which each block of color is separated into its subtractive primary color components for printing: cyan, magenta, and yellow (as well as black). All other colors are created by blending layers of various sizes of halftone spots printed in cyan, magenta, and yellow to create the image. *See also* color model, color separation (definition 1). *Compare* spot color.

processing *n.* The manipulation of data within a computer system. Processing is the vital step between receiving data (input) and producing results (output)—the task for which computers are designed.

processor *n. See* central processing unit, microprocessor.

Processor Direct Slot *n. See* PDS (definition 1).

Processor Input/Output *n. See* PIO.

Prodigy Information Service *n.* An online information service founded by IBM and Sears. Like its competitors America Online and CompuServe, Prodigy offers access to databases and file libraries, online chat, special interest groups, e-mail, and Internet connectivity. *Also called* Prodigy.

product *n.* **1.** An operator in the relational algebra used in database management that, when applied to two existing relations (tables), results in the creation of a new table containing all possible ordered concatenations (combinations) of tuples (rows) from the first relation with tuples from the second. The number of rows in the resulting relation is the product of the number of rows in the two source relations. *Also called* Cartesian product. *Compare* inner join. **2.** In mathematics, the result of multiplying two or more numbers. **3.** In the most general sense, an entity conceived and developed for the purpose of competing in a commercial market. Although computers are products, the term is more commonly applied to software, peripherals, and accessories in the computing arena.

production system *n.* In expert systems, an approach to problem solving based on an "IF this, THEN that" approach that uses a set of rules, a database of information, and a "rule interpreter" to match premises with facts and form a conclusion. Production systems are also known as rule-based systems or inference systems. *See also* expert system.

Professional Graphics Adapter *n.* A video adapter introduced by IBM, primarily for CAD applications. The Professional Graphics Adapter is capable of displaying 256 colors, with a horizontal resolution of 640 pixels and a vertical resolution of 480 pixels. *Acronym:* PGA.

Professional Graphics Display *n.* An analog display introduced by IBM, intended for use with their Professional Graphics Adapter. *See also* Professional Graphics Adapter.

profile[1] *n. See* user profile.

profile[2] *vb.* To analyze a program to determine how much time is spent in different parts of the program during execution.

Profiles for Open Systems Internetworking Technology *n. See* POSIT.

program[1] *n.* A sequence of instructions that can be executed by a computer. The term can refer to the original source code or to the executable (machine language) version. *Also called* software. *See also* program creation, routine, statement.

program[2] *vb.* To create a computer program, a set of instructions that a computer or other device executes to perform a series of actions or a particular type of work.

program card *n. See* PC Card, ROM card.

program cartridge *n. See* ROM cartridge.

program counter *n.* A register (small, high-speed memory circuit within a microprocessor) that contains the address (location) of the instruction to be executed next in the program sequence.